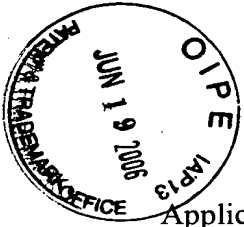


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Bruno RICHARD, et al.

Title: METHOD AND APPARATUS FOR INDEXING FILES

Appl. No.: 10/012,466

Filing Date: 12/12/2001

Examiner: H. Thai

Art Unit: 2163

**RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF
AND RESUBMISSION OF REVISED APPEAL BRIEF**

Mail Stop APPEAL BRIEFS - PATENTS

Commissioner for Patents

PO Box 1450

Alexandria, Virginia 22313-1450

Sir:

This Response is responsive to the Notification of Non-Compliant Appeal Brief dated May 19, 2006, concerning the above-identified application. The Response is being timely filed and no fee is believed to be due.

With respect to paragraphs 4 and 10 in the Notification, a concise explanation of the subject matter defined in each independent claim referring to the specification by page and line number and to the drawings by reference characters is provided in section 6 of the attached resubmitted Revised Appeal Brief. In paragraph 10, the office action states that "grouping claims..." is unacceptable whereas SPE Don Wong has indicated in a telephone discussion with the undersigned attorney that grouping claims was fine when the same/similar limitations were repeated in many of the independent claims. Furthermore, addressing similar limitations together is standard practice in prosecution and serves the purpose of a concise prosecution record. However, to expedite prosecution, applicants have separately identified each limitation in each independent claim.

With respect to this section, the MPEP 1205.02 states “concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which must refer to the specification by page and line number, and to the drawing, if any, by reference characters requires somewhat more detail than simply summarizing the invention, it is considered important to enable the Board to more quickly determine where the claimed subject matter is described in the application.” (Emphasis Added). The applicants have provided substantially more detail than summarizing the invention and have made extensive reference to the specification and the drawings. Furthermore, it is black letter law that the specification (like the claims) has to be read as a whole for what it conveys to one skilled in the art and the summary provided herein does not limit the claims any more than what is disclosed in the specification as a whole when considered from the perspective of one skilled in the art.

Accordingly, applicants believe that the appeal brief is compliant with all the applicable rules. If the examiner believes otherwise, the examiner is encouraged to contact the undersigned attorney at the local telephone number below.

In view of above, appellants respectfully solicit the Honorable Board of Patent Appeals and Interferences to reverse the rejection of the pending claims and pass this application on to allowance.

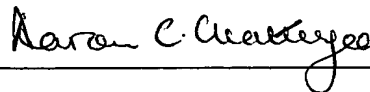
At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account 08-2025 under 37 C.F.R. 1.16 through 1.21 inclusive, and any other sections in the Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

Date June 19, 2006

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By



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Registration No. 41,398



Attorney Docket 50002133-2US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Bruno RICHARD, et al.
Title: METHOD AND APPARATUS FOR INDEXING FILES
Appl. No.: 10/012,466
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REVISED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop APPEAL BRIEF - PATENTS

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

The following is the Appellant Appeal Brief under the provisions of 37 C.F.R. 41.37.

1. Real Party in Interest

The real party in interest is Hewlett-Packard Company (with a principle place of business in Fort Collins, Colorado), the assignee of record.

2. Evidence Appendix

There is no related evidence that will directly affect, be directly affected by or have a bearing on the present appeal, that is known to appellant, the assignee, or the appellant's patent representative. The Evidence Appendix (Section 10), attached hereto, states "None".

3. Related Appeals and Interferences

There are no related appeals or interferences that will directly affect, be directly affected by or have a bearing on the present appeal, that are known to appellant, the assignee,

or the appellant's patent representative. The Related Proceedings Appendix (Section 11), attached hereto, states "None".

4. Status of Claims

The present appeal is directed to claims 1-15 and 18-39, which are the claims under consideration. A copy of the pending claims 1-15 and 18-39 are attached herein in the Claims Appendix (Section 12).

Claims 1-15 and 18-39 are finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,778,395 to Whiting et al. (hereafter "Whiting") in view of U.S. patent 5,485,606 to Midgley et al. (hereafter "Midgley").

5. Status of Amendments

Claims 1-39 were initially pending in the application filed on December 12, 2001. Claims 1, 7, 11, 14, 15, 18, 21, 23-28, 31, 37, and 39 were amended in an Amendment and Reply Under 37 C.F.R. § 1.111 filed July 20, 2004, in reply to a first Office Action on the merits mailed on January 20, 2004.

Claims 1, 11, 14, 18, 21, 23, 29, 31, 37, and 39 were amended in an Amendment and Reply Under 37 C.F.R. § 1.116 filed February 25, 2005, in reply to a final Office Action on the merits mailed on December 28, 2004. Entry of the Amendment filed February 25, 2005 was requested in a Request for Continued Examination (RCE) filed April 26, 2005 and a Submission in reply to 1) a final Office Action mailed on December 28, 2004 and 2) an Advisory Action mailed March 18, 2005 which rejected claims 1-39. Claims 1, 14, 15, 18, 21, 23, 29, 30, 31, 37 and 39 were amended and claims 16 and 17 were canceled in the Submission filed April 26, 2005.

A Reply Under 37 C.F.R. § 1.111 was filed August 17, 2005, in response to 1) a non-final Office Action mailed May 17, 2005.

A Notice of Appeal was filed on December 23, 2005, in response to a final Office Action dated October 27, 2005.

This Appeal Brief is being filed in response to the final Office Action dated October 27, 2005.

6. Summary of the Invention

Each of the independent claims 1, 14, 15, 18, 21, 23, 29, 31, 37, and 39 recite a process, system, server, or program code for indexing files residing on a computer as a part of backup operation of the files. The description of the specific features recited in each of these independent claims is provided below in separate paragraphs.

Claim 1

Claim 1 recites a “process of indexing files residing on a computer as part of a backup operation.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 1 recites “executing one or more periodic backup operations on the files, said backup operation including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 1 recites “using said scanning step of the backup operation to substantially simultaneously derive a set of word data indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user’s data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. On of skill in the computer science art would recognize that the term “opening each file” means reading the actual contents of each file (for example,

the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

Claim 1 recites using the word data indexes for “subsequent use in obtaining direct access to said files based on the word data content of said files.” This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 14

Claim 14 recites a “knowledge-base system for indexing files residing on a computing system as part of a backup operation.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 14 recites “means for regularly backing up files stored on computers connected to or constituting a network.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 14 recites “means for substantially simultaneously indexing the files during the backup procedure for the purpose of creating and updating a database of backup files and documents as well as a centralized word data index of backed up documents.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26

and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user's data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term "opening each file" means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

Claim 14 recites providing "direct access to the backup files based on the word data content of the backed-up documents." This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 15

Claim 15 recites a "backup process for a stand-alone computer." The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 15 recites opening each file which is to be backed up. This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 15 recites that while opening each file, compiling a set of word data indexes characterizing the files which are incorporated into a table of indexes. This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user's data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term "opening each file" means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes. The specification discloses that the files are then closed upon completion of the backup and indexing operation.

Claim 18

Claim 18 recites a "process for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files, the table being stored on a server associated with a database adapted to store backup files." The specification

discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 18 recites “executing repeated backup operations on the files, said backup operations including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 18 recites “using said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes, wherein said server substantially simultaneously carries out the backup and indexing of the files.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user’s data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term “opening each file” means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when

considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

With respect to the inclusion of the word data indexes in a centralized table of indexes, this recited feature is disclosed at least in steps 41-43 disclosed in figure 4 and discussed on page 10, lines 4-18 in the text of the specification as a centralized index that is maintained in a server.

Claim 18 further recites the “word data indexes provide direct access to the files based on the word data content of the files.” This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 21

Claim 21 recites a “process for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files, the table being stored on a server associated with a database adapted to store backup files.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 21 recites “executing repeated backup operations on the files, said backup operations including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 21 recites “using said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26

and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user's data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term "opening each file" means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

With respect to the inclusion of the word data indexes in a centralized table of indexes, this recited feature is disclosed at least in steps 41-43 disclosed in figure 4 and discussed on page 10, lines 4-18 in the text of the specification as a centralized index that is maintained in a server.

Claim 21 recites "wherein said word data indexes provide direct access to the files based on the word data content of the files." This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 21 also recites access rights including at least one indexing right for each file that is used for controlling the indexing process of the files in the centralized table of indexes. See, for example, page 8, lines 35 to page 9, lines 2, and page 11, lines 21-26 of the specification relevant to this claimed feature.

Claim 23

Claim 23 recites an apparatus comprising program code elements for executing one or more periodic backup operations on the files stored on a computer, with backup operation including the step of scanning the files. The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 23 recites “executing one or more periodic backup operations on files stored on a computer, said backup operation including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 23 recites “using said scanning operation to substantially simultaneously derive a set of word data indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user’s data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term “opening each file” means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed

in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

Claim 23 recites using the word data indexes for “subsequent use in obtaining direct access to said files based on the word data content of said files.” This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26

Claim 29

Claim 29 recites a “server associated with a database adapted to store backup files and comprising program code elements for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting, a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 29 recites “program code element to execute repeated backup operations on the files, said backup operations including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 29 recites “program code element that uses said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files

(being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user's data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term "opening each file" means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

With respect to the inclusion of the word data indexes in a centralized table of indexes, this recited feature is disclosed at least in steps 41-43 disclosed in figure 4 and discussed on page 10, lines 4-18 in the text of the specification as a centralized index that is maintained in a server.

Claim 29 further recites that the "word data indexes provide direct access to the files based on the word data content of the files." This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 31

Claim 31 recites “A computer program product comprising computer program code stored on a computer readable medium adapted, when executed on a computer as part of a backup operation.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 31 recites “execute one or more repeated backup operations on files stored on a computer, said backup operation including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 31 recites “derive, using said scanning operation, of a set of word data indexes for subsequent use.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user’s data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term “opening each file” means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents

and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

Claim 31 recites the word data indexes are used subsequently “in obtaining direct access to said files based on the word data content of said files.”

Claim 37

Claim 37 recites a “computer program product comprising program code element for use on a server associated with a database adapted to store backup files and for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting, a network for the purpose of generating a centralized table of word data indexes for use in obtaining direct access to said files.” The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example, page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 37 recites “program code element arranged to execute repeated backup operations on the files, said backup operations including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 37 recites “program code element being arranged to use said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in a centralized table of indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed).

See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user's data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term "opening each file" means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

With respect to the inclusion of the word data indexes in a centralized table of indexes, this recited feature is disclosed at least in steps 41-43 disclosed in figure 4 and discussed on page 10, lines 4-18 in the text of the specification as a centralized index that is maintained in a server.

Claim 37 recites "wherein said word data indexes provide direct access to the files based on the word data content of the files." This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Claim 39

Claim 39 recites "program product for backing up files within a network of computers." The specification discloses a process, system, and program code for automatically indexing files and documents as part of a backup operation. See, for example,

page 2, lines 11-17 and lines 22-23, page 8, lines 7-8, and page 10, lines 27-35 of the specification.

Claim 39 recites “computer program code stored on a computer readable medium adapted, when executed on a computer, (i) to execute one or more repeated backup operations on files stored on a computer, said backup operation including the step of scanning the files.” This recited feature is disclosed in the specification at, for example, page 2, lines 11-17, page 3, lines 4-6, page 4, lines 21-25, and page 10, lines 27-35.

Claim 39 recites “to substantially simultaneously derive using said scanning operation a set of word data indexes.” This recited feature is disclosed since the specification states that, as part of the backup operations on the files on a computer, a scanning operation is carried out to derive a set of itemized indexes for subsequent use in obtaining *direct access* to the files. See page 2, lines 11-17. The scanning operation (for deriving the indexes) is used for both generating the signature of a file and for extracting the *key words and indexes* for the files (being backed up). See page 2, lines 25-26 and page 10, lines 26-32 of the specification. Furthermore, the specification discloses that the same scanning operation is used for the both the backup and indexing processes (i.e., they are substantially simultaneously performed). See page 3, lines 4-6 of the specification. The specification discloses that indexes are created for accessing a user’s data in particular documents by extracting *relevant words and items* which can serve as *direct access* points to the individual files in which they are referred to. See page 1, lines 15-20. The disclosure also states that the process of indexing includes opening each file for compiling the set of indexes. See page 4, lines 21-25. One of skill in the computer science art would recognize that the term “opening each file” means reading the actual contents of each file (for example, the word data of text files) as part of the indexing process something which only makes sense if the contents (i.e., the word data in text files which are taught as being indexed, for example, on page 3, lines 1-2) were used to create the indexes. The fact that the contents of the files include text (i.e., word data) is also disclosed in page 7, lines 34-36 which discloses that the documents backed up include text documents and other compound files that include textual information. Therefore, these portions of the specification when considered together disclose that the scanning step of the backup

operation is used in certain embodiments to substantially simultaneously derive a set of word data indexes.

With respect to the inclusion of the word data indexes in a centralized table of indexes, this recited feature is disclosed at least in steps 41-43 disclosed in figure 4 and discussed on page 10, lines 4-18 in the text of the specification as a centralized index that is maintained in a server.

Claim 39 further recites that the word data indexes are used “in obtaining direct access to said files based on the word data content of said files.” This feature is disclosed in the specification which discloses, once the indexes (for example, based on the word data content) have been created, a process of searching the indexes to access the files in figure 5 and its description in the text at page 11, lines 9-26.

Independent claim 39 further recites that the search for file includes a process of first processing the search request by reference to a first local table of indexes stored on a computer and then processing an additional search in a centralized index on a server. This feature is disclosed at, for example, in steps 52-56 in figure 5 and its description on page 11, lines 15-34 in the text of the specification.

7. Issues

The issue on appeal is whether the examiner erred in rejecting claims 1-15 and 18-39 under 37 U.S.C. § 103(a) as being unpatentable over Whiting (U.S. Patent No. 5,778,395) in view of Midgley (U.S. Patent No. 5,485,606).

8. Argument

It is respectfully submitted that the final rejection of claims 1-15 and 18-39 under 37 U.S.C. § 103(a) as being unpatentable over Whiting in view of Midgley is erroneous for at least the following reasons.

I. Independent Claims 1, 14, 15, 18, 21, 23, 29, 31, 37, and 39

The Applied Prior Art does not show features recited in the pending independent claims

Each of the independent claims 1, 14, 15, 18, 21, 23, 29, 31, 37, and 39 recite, *inter alia*, a process (or corresponding system/software) that (1) uses the scanning step of a backup operation on files to substantially simultaneously derive a set of word data indexes, (2) whereby the *word data indexes* provide a direct access to the files based on the word data content of the files. These recited features are not disclosed or suggested by the applied prior art.

Specifically, with respect to the Whiting reference, applicants note that the prior Office Action has acknowledged that Whiting does not disclose the creation of word (or semantic) data indexes as a part of the backup process. As noted earlier, the only indexing disclosed in Whiting is directed to properly performing the backup process in order to keep track of the files for the backup system. See col. 17, line 5 to col. 18, line 35 of Whiting. As noted in the Abstract, Whiting states that all its enhancement *significantly reduce both the amount of storage and the amount of network bandwidth for performing the backup*. See lines 14-16 of the Abstract of Whiting. Therefore, Whiting teaches indexing during a backup process for improving the efficiency of the backup process itself and does not teach the claimed using of the scanning step of a backup to substantially simultaneously derive a set of word data indexes which allow direct access (by a key word based search request) to the files based on the word data content of the files.

The final Office Action incorrectly asserts that Whiting discloses “using the scanning operation to derive a set of word data indexes for subsequent use in obtaining direct access to said files,” and cites to Figs. 3-5, col. 4, lines 25-32, col. 5, line 45-46, col. 14, line 48-51, and col. 12, lines 38-63 of Whiting. However, none of these cited portions of Whiting disclose or suggest using the scanning operation to derive a set of word data indexes for direct access to the files based on the word data content of the files.

Specifically, *Figs. 3-5* disclose the backup process and the details of the information stored a backup directory file 143 (and offsite in a file 148). Nowhere is the backup directory

file 143 described as an index file into the backed up files with the index being a word data index for access based on the word data content of the files being backed up. *Col. 4, lines 25-32* of Whiting discloses that access to backup data can be insured by assigning standard network security access rights to each user's directory and that each user can access his own applications from the backup directory. *Col. 5, lines 45-46* of Whiting states that a user "may access the files directly using his own applications, without first having to copy them to a separate restore program." *Col. 14, lines 48-51* of Whiting discloses that pointers may be used to access compressed and encrypted data blocks (corresponding to particular files) as shown with respect to figure 6 of Whiting. *Col. 12, lines 38-63* describes sections of the backup directory file and refers to sections containing information on description of backup operation as well as indexes that track the location of the actual data files. Clearly these cited portions of Whiting have no bearing on the claimed derivation of a set of word data indexes for direct access to the files based on the word data content of the files. Accordingly, at least this recited feature in the pending independent claims is not disclosed or suggested by Whiting.

Neither is this deficiency in Whiting cured by Midgdey. Specifically, the Office Action cites to the Summary and col. 5, lines 46-67 of Midgdey for allegedly disclosing using the scanning operation to derive a set of word data indexes for direct access to the files based on the word data content of the files. However, this portion only discloses that the back up process creates a directory file with an operating system specific field area 49 which includes data that is processed uniquely by a particular operating system (and would be ignored by other operating systems). For example, control words used to *control access* (for example, based on permissions or ownership) to data would be stored in this section (since controlling access is typically performed by an operating system, for example, through the operating system provided functionality of a file system). These control words have nothing to do with word data indexes for direct access to the files based on the word data content of the files (as opposed to ownership or permission based access restrictions on the file).

Accordingly, neither Whiting nor Midgdey, and nor their reasonable combination, discloses or suggests features recited in the pending independent claims. Therefore, the pending independent claims are patentable over the applied prior art.

Reply to Response to Arguments on Page 2 of Final Office Action dated October 27, 2005

The Office Action states that there is not enough support to how the scanning step of the backing up operation is used to derive a set of word data indexes for subsequent use in obtaining direct access to the files. However, the specifics (i.e., the “how to”) of creating a word data index in obtaining direct access to files based on their word data content is well known to those of skill in the art of databases and indexing. With respect to claimed creation of such a word data index during a backing up operation, there is sufficient support in the specification (which includes the originally filed claims). In addition, to the disclosure of page 1, line 15-20, page 2, lines 25-26, and page 7, lines 18-36 of the specification when considered together with the totality of the disclosure (which relates to indexing files during a backing up operation), the originally filed claims 11 and 15 also support this feature. Claim 11 specifically discloses that the indexes (created during backup) are searchable by keywords. Claim 15 discloses that each file to be backed up is opened so that its content (key words for text files disclosed on page 7, lines 34-36, for example) is used for compiling the set of indexes which are they searchable by keywords (as disclosed in the originally filed claim 11, for instance). Therefore, both the process of creating indexes based on the content of the backed-up files (and not just their attributes) and the search of these indexes by keywords is disclosed by the specification in sufficient detail that would be understood by one skilled in the art.

II. Dependent claims 1-13, 19, 20, 22, 24-28, 30, 32-36, and 38

Dependent claims 1-13, 19, 20, 22, 24-28, 30, 32-36, and 38 depend from one of independent claims 1, 14, 15, 18, 21, 23, 29, 31, 37, and 39 and are allowable for at least the same reasons, as well as for further patentable features recited therein.

9. Conclusion

In view of above, appellants respectfully solicit the Honorable Board of Patent Appeals and Interferences to reverse the rejection of the pending claims and pass this application on to allowance.

At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account 08-2025 under 37 C.F.R. 1.16 through 1.21 inclusive, and any other sections in the Title 37 of the Code of Federal Regulations that may regulate fees.

Respectfully submitted,

June 19, 2006

Date

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10. **EVIDENCE APPENDIX**

None

11. RELATED PROCEEDINGS APPENDIX

None

12. CLAIMS APPENDIX

LIST OF THE PENDING CLAIMS (WITH STATUS IDENTIFIERS)

1. (Previously Presented) A process for indexing files residing on a computer as part of a backup operation, comprising the steps of:

- executing one or more periodic backup operations on the files, said backup operation including the step of scanning the files; and
- using said scanning step of the backup operation to substantially simultaneously derive a set of word data indexes for subsequent use in obtaining direct access to said files based on the word data content of said files.

2. (Original) An indexing process as claimed in claim 1 wherein both text processing files and compound files are analyzed and indexed.

3. (Original) An indexing process as claimed in claim 1 implemented in a centralized environment where a server is associated with a database, said database adapted to store backup files and wherein said server substantially simultaneously carries out the backup and the indexing of the files.

4. (Original) An indexing process as claimed in claim 3 wherein said server indexes files residing on a plurality of computers attached to, or constituting a network for the purpose of generating a centralized table of indexes loaded on said server.

5. (Original) An indexing process as claimed in claim 4 wherein access rights are defined for each file including at least one indexing right that is used for controlling the indexing process of the files within said centralized table of indexes.

6. (Original) An indexing process as claimed in claim 5 wherein the at least one indexing right includes: a first indexing attribute which authorizes the indexing of a given file

within the centralized index; and a second indexing attribute defining selective access to that file.

7. (Previously Presented) An indexing process as claimed in claim 6 wherein after completion of the backup of files residing on a first machine, said server transmits to the first machine a local table of indexes representative of the different documents stored on that first machine.

8. (Original) An indexing process as claimed in claim 3 wherein transfer of the files which are to be backed up uses the Hyper Text Transfer (H.T.T.P.), RCP, FTP or the like protocols.

9. (Original) An indexing process as claimed in claim 1 wherein the files correspond to system and/or user files.

10. (Original) An indexing process as claimed in claim 9 wherein the indexing is performed in relation to the user files.

11. (Previously Presented) A process for searching for a file within a set of indexed files, said files stored on a plurality of computers connected to, or constituting, a network, the files being indexed in accordance with the indexing process as claimed in claim 6, comprising:

- initiating a search request for a given file, said request containing a set of key words corresponding to the word data in the indexes;

- processing said search request by reference to a first local table of indexes stored on one of said plurality of computers in order to locate a first set of relevant files extracted from said one computer;

- processing, upon request from the user, an additional search within said centralized index loaded into said server for the purpose of obtaining any additional results corresponding to files stored on the backup database; and

- displaying the result of said additional search and, for each or any file having a selective access attribute, automatically generating an electronic mail to be sent to a corresponding originator of said file for the purpose of requesting access to said file.

12. (Original) An apparatus comprising program code elements for carrying out the process as claimed in claim 1.

13. (Original) A computer program product comprising computer program code stored on a computer readable medium adapted, when executed on a computer, to perform the step of claim 1.

14. (Previously Presented) A knowledge-base system for indexing files residing on a computing system as part of a backup operation comprising:

- means for regularly backing up files stored on computers connected to or constituting a network; and
- means for substantially simultaneously indexing the files during the backup procedure for the purpose of creating and updating a database of backup files and documents as well as a centralized word data index of backed up documents that provide direct access to the backup files based on the word data content of the backed-up documents.

15. (Previously Presented) A backup process for a stand-alone computer comprising:

- opening each file which is to be backed up;
- while opening said file, compiling a set of word data indexes characterizing said files and which will be incorporated into a table of indexes; and
- closing said file upon completion of said backup and said indexing operation.

16-17 (Cancelled)

18. (Previously Presented) A process for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files, the table being stored on a server associated with a database adapted to store backup files, comprising the steps of:

- executing repeated backup operations on the files, said backup operations including the step of scanning the files; and
- using said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes, wherein said server substantially simultaneously carries out the backup and the indexing of the files, and wherein said word data indexes provide direct access to the files based on the word data content of the files.

19. (Original) An indexing process as claimed in claim 18 wherein access rights are defined for each file including at least one indexing right that is used for controlling the indexing process of the files within said centralized table of indexes.

20. (Original) An indexing process as claimed in claim 19 wherein the at least one indexing right includes: a first indexing attribute which authorizes the indexing of a given file within the centralized index; and a second indexing attribute defining selective access to that file.

21. (Previously Presented) A process for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files, the table being stored on a server associated with a database adapted to store backup files, comprising the steps of:

- executing repeated backup operations on the files, said backup operations including the step of scanning the files; and
- using said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes wherein said word data indexes

provide direct access to the files based on the word data content of the files, wherein said server substantially simultaneously carries out the backup and the indexing of the files, wherein access rights including at least one indexing right are defined for each file and used for controlling the indexing process of the files within said centralized table of indexes.

22. (Original) An indexing process as claimed in claim 21 wherein the at least one indexing right includes: a first indexing attribute which authorizes the indexing of a given file within the centralized index; and a second indexing attribute defining selective access to that file.

23. (Previously Presented) An apparatus comprising program code elements for:

- executing one or more periodic backup operations on files stored on a computer, said backup operation including the step of scanning the files; and
- using said scanning operation to substantially simultaneously derive a set of word data indexes for subsequent use in obtaining direct access to said files based on the word data content of said files.

24. (Previously Presented) The apparatus as claimed in claim 23 in the form of a server is associated with a database adapted to store backup files and wherein said program code elements are arranged to substantially simultaneously carry out the backup and the indexing of the files.

25. (Previously Presented) The apparatus as claimed in claim 24 wherein said program code elements are arranged to index files residing on a plurality of computers attached to, or constituting a network for the purpose of generating a centralized table of indexes stored on said server.

26. (Previously Presented) The apparatus as claimed in claim 23 wherein said program code elements operate under the control of access rights that are defined for each file including at least one indexing right.

27. (Previously Presented) The apparatus as claimed in claim 26 wherein the at least one indexing right includes: a first indexing attribute which authorizes the indexing of a given file within the centralized index; and a second indexing attribute defining selective access to that file.

28. (Previously Presented) The apparatus as claimed in claim 24 wherein the program code elements are arranged to transmit to a computer a local table of indexes representative of the different files stored on that computer after completion of the backup of files residing on that computer.

29. (Previously Presented) A server associated with a database adapted to store backup files and comprising program code elements for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting, a network for the purpose of generating a centralized table of indexes for use in obtaining direct access to said files, said program code elements comprising:

program code element to execute repeated backup operations on the files, said backup operations including the step of scanning the files; and

program code element that uses said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes wherein said word data indexes provide direct access to the files based on the word data content of the files.

30. (Previously Presented) A server as claimed in claim 29 wherein said program code elements operate under the control of at least one indexing right defined for each file, said indexing right including: a first indexing attribute which authorizes the indexing of the file within the centralized index; and a second indexing attribute defining selective access to that file.

31. (Previously Presented) A computer program product comprising computer program code stored on a computer readable medium adapted, when executed on a computer as part of a backup operation, to

- execute one or more repeated backup operations on files stored on a computer, said backup operation including the step of scanning the files; and
- derive, using said scanning operation, of a set of word data indexes for subsequent use in obtaining direct access to said files based on the word data content of said files.

32. (Original) A computer program product as claimed in claim 31 for use in a server that is associated with a database adapted to store backup files and wherein said program code elements are arranged to substantially simultaneously carry out the backup and the indexing of the files.

33. (Original) A computer program product as claimed in claim 32 wherein said program code elements are arranged to index files residing on a plurality of computers attached to, or constituting a network for the purpose of generating a centralized table of indexes stored on said server.

34. (Original) A computer program product as claimed in claim 33 wherein said program code elements operate under the control of access rights that are defined for each file including at least one indexing right.

35. (Original) A computer program product as claimed in claim 34 wherein the at least one indexing right includes: a first indexing attribute which authorizes the indexing of a given file within the centralized index; and a second indexing attribute defining selective access to that file.

36. (Original) A computer program product as claimed in claim 33 wherein the program code elements are arranged to transmit to a computer a local table of indexes

representative of the different files stored on that computer after completion of the backup of files residing on that computer.

37. (Previously Presented) A computer program product comprising program code element for use on a server associated with a database adapted to store backup files and for indexing files residing on a plurality of computers as part of a backup operation attached to, or constituting, a network for the purpose of generating a centralized table of word data indexes for use in obtaining direct access to said files, said program code elements comprising:

program code element arranged to execute repeated backup operations on the files, said backup operations including the step of scanning the files; and

program code element being arranged to use said scanning operation to substantially simultaneously derive a set of word data indexes for inclusion in the centralized table of indexes wherein said word data indexes provide direct access to the files based on the word data content of the files.

38. (Original) A computer program product as claimed in claim 37 wherein said program code elements operate under the control of at least one indexing right defined for each file, said indexing right including: a first indexing attribute which authorizes the indexing of the file within the centralized index; and a second indexing attribute defining selective access to that file.

39. (Previously Presented) A program product for backing up files within a network of computers, comprising:

(a) computer program code stored on a computer readable medium adapted, when executed on a computer, (i) to execute one or more repeated backup operations on files stored on a computer, said backup operation including the step of scanning the files; and (ii) to substantially simultaneously derive using said scanning operation a set of word data indexes for subsequent use in obtaining direct access to said files based on the word data content of said files; and

(b) computer program code stored on a computer readable medium adapted, when executed on a computer, to search for a file stored on a plurality of computers connected to, or constituting, a network within such a set of word data indexes, by (i) initiating a search request for a given file, said request containing a set of key words or indexes, (ii) processing said search request by reference to a first local table of indexes stored on one of said plurality of computers in order to locate a first set of relevant files extracted from said one computer; (iii) processing an additional search within a centralized index on a server for the purpose of obtaining any additional results corresponding to files stored on the backup database, (iv) displaying the result of said additional search.